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# **Task Tracking Portal for Projects**

**Presented by Susan Semancik  
NASA Goddard Space Flight Center (GSFC)**

NASA PM Challenge  
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# Overview

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- Purpose
  - Explore the design and benefits of a simple tool to track project task assignments and status
  
- Agenda
  - Objectives
  - Benefits
  - Tool Requirements
  - Tool Design
  - Prototype Displays
  - Summary
  - Questions?
  - (Demo of prototype if time permits)



# Objectives

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- **Simple Design and Navigation**
  - Simple interface for tracking task info, assignments, and status
  - Menu-driven functionality
  - Selection lists for pre-defined information
  - Sanity checks on inputs
- **Database Interface**
  - Entries are saved and retrievable
- **Web Interface**
  - Data entry available to authorized users 24x7
  - Reports are dynamically generated from latest entries
  - Reports can be customized by selecting filters
  - Users only required to have a web browser
- **Low cost/overhead**
  - Use existing server and operations support
  - Re-use previous projects program entry screens, navigation design, and database implementation



## Benefits

- **All project info in one place**
  - Status of multiple projects can be viewed in the same place
  - Tasks, status, and contact info readily available if someone is out or replaced
- **Immediate input and report capability**
  - Users don't have to wait for availability of a shared status spreadsheet
  - Reports are on-demand rather than produced monthly for status reviews
- **Record of assignments and status**
  - See who is over- or under-utilized
  - See where there are bottlenecks
  - Coordinates team members from off-site locations
- **Pre-defined reporting formats**
  - Format changes are transparent to users
  - Provides uniformity in what is reported and in what units



## Benefits (Continued)

- **Better Schedules**
  - Can use project archives for basing similar project's tasks and durations
  - Can make assignment changes sooner to keep critical tasks on schedule
- **Availability of metrics**
  - Metrics can be generated without requiring users to regenerate their status info in a different format
  - Automatically calculates durations, percents, and reforecasts
- **Potential saving of resources**
  - Reduces learning curve, since prompted for needed data for reports
  - Reduces the need to purchase multiple scheduling packages/licenses for all team members
  - Reduces the need for separate user status reports, since comments are associated with task status
  - Reduces manager's time, since reports are automatically updated
  - Reduces time managing project mailing lists, since they are role based and automatically populated when email is sent
- **Potential increase in reporting accuracy**
  - Status is reported by the people doing the work
  - Currency of reported data is saved



# Tool Requirements

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- **Role-based Interface**
  - Project Management
    - Enter/Edit project info
    - Enter/Edit task assignments
    - Manage project mailing lists
    - View reports
  - Team Members
    - Enter/Edit task status
    - View reports
    - View task assignments
    - Receive automated email notifications
  - Upper Management/Stakeholders
    - View reports
    - Receive automated email notifications



## Tool Requirements (Continued)

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- **Available Functionality**
  - Display reports using report templates
    - Project milestone chart
    - Task schedule timeline
    - Cumulative task completion chart
    - Labor utilization table
    - Stakeholder analysis matrix
    - Risk matrix
  - Perform calculations
    - Planned end dates based on work calendar
    - Task % completions based on weighted values
    - Projected completion dates based on rate of actual completions
    - Forecast completions needed to remain on schedule
  - Save information in an on-line database repository
  - Export data in Excel and PDF formats



# Tool Design

- **Project Data**

- Project definition
  - o Name/description
  - o Manager/deputy manager
  - o Planned start/end dates
  - o Budget type
  - o Level
  - o Type
  - o Risk information
- Contact info
- Team roles
- Team membership
- Stakeholder roles and info
- Stakeholder membership

- **Task Data**

- Task/Subtask definition
  - o Name/description
  - o Category
  - o Estimated duration
  - o Risk description
  - o Critical path flag
  - o Start date or task inter-dependency
  - o Milestone Flag
- Task Status info
  - o % complete
  - o Status category
  - o Hours worked
  - o Comments





## Tool Design (continued)

- **Navigation: task-oriented**

- Home screen
  - Project summaries
  - Filter options selectable for reports
- Project options
  - Add
  - Edit
  - Delete
- Task options
  - Add
  - Edit
  - Delete
  - Assign
  - Status
- Subtask options
  - Add
  - Edit
  - Delete
- View options
  - Reports
  - Charts


- **Navigation: membership-oriented**

- Contact options
  - Add
  - Edit
  - Disable
- Team Role options
  - Add
  - Edit
- Stakeholder Role options
  - Add
  - Edit
- Stakeholder Member options
  - Assign contact to stakeholder role
  - Remove contact from stakeholder role
- Other options
  - Mailing List Management
  - Feedback



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# Prototype Displays

**TASK TRACKING PORTAL**

+ Wallops Flight Facility  
+ Goddard Space Flight Center

FIND IT @ NASA :

+ Home + Project ▾ + Task ▾ + SubTask ▾ + User ▾ + Contact ▾ + Team Role ▾ + Stakeholder Role ▾ + View ▾ + Logout

Filter by Project:

Filter by Project Mgr/Deputy Mgr:

Filter by Organization:

☒ Show all offices within selected ORG


(Note: selections are automatically reflected in applicable reports and charts.)

## Active Project Information Report as of 01/15/09

Project Name	Project Level	Project Type	Budget Type	Project Manager	Deputy Project Manager	Planned Start Date	Planned End date	Project Description
ISP Role Tracking	Center	Continuation/Phased	Out Year Requirement	Susan Semancik		01/14/08	04/22/08	IT Security Role Tracking
LXT	Center	Replacement/Upgrade	One-Time Cost	Mary Bents	Susan Semancik			LISTS/X500 Transformation



# Prototype Displays (Continued)

**TASK TRACKING PORTAL**

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FIND IT @ NASA :

+ Home + Project ▾ + Task ▾ + SubTask ▾ + User ▾ + Contact ▾ + Team Role ▾ + Stakeholder Role ▾ + View ▾ + Logout

TTP ADD USER

+ Add  
+ Edit  
+ Delete

Date: 01/14/2009

**Search LDAP**  
Enter First Name and/or Last Name to search LDAP for user or enter User information below.  
First Name:  Middle Initial:  Last Name:    
Matching Records Found in LDAP: 0 Tab to grid

User	Center	Org	Email	Agency ID	UUPIC	First Name

First Name:   
Last Name:   
AgencyID:   
UUPIC:   
Email:   
Org:



# Project Milestone Chart

Information Security Portal Project												
Key Milestones												
	2008						2009					
	D	J	F	M	A	M	J	J	A	S	O	N
Module 1: Go-live	▲	1/7										
Module 2: System Requirements Review			▲	3/6								
Module 2: Critical Design Review				▲	4/9							
Module 2: Test Readiness Review							▲	8/13				
Module 2: Operational Readiness Review								▲	9/15			
Module 2: Go-live								▲	9/30			
Module 3: Go-live										▲	2/27	
Module 4: Go-live											▲	7/31



# Task Status Timeline

## Project #3 = ISP Role Tracking

■ Planned ■ Reported

	Jan-2008			Feb-2008				Mar-2008			
	Sun 13	Sun 20	Sun 27	Sun 03	Sun 10	Sun 17	Sun 24	Sun 02	Sun 09	Sun 16	Sun 23
Identify requirements 100% - 01/25/08	Planned			Reported							
Identify data 35% - 02/04/08				Planned				Reported			
Identify processes 3% - 01/25/08				Planned				Reported			
Identify interfaces 0% -								Planned			
Identify server-side requirements 0% -								Planned			
Complete SRR 0% -								Planned			



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# Task Status Report

**Task Status Report as of 01/15/09**

ISP Role Tracking Project

Project Manager = Susan Semancik

Number of tasks = 6, Total hours worked = 119, Percent Completed = 17%

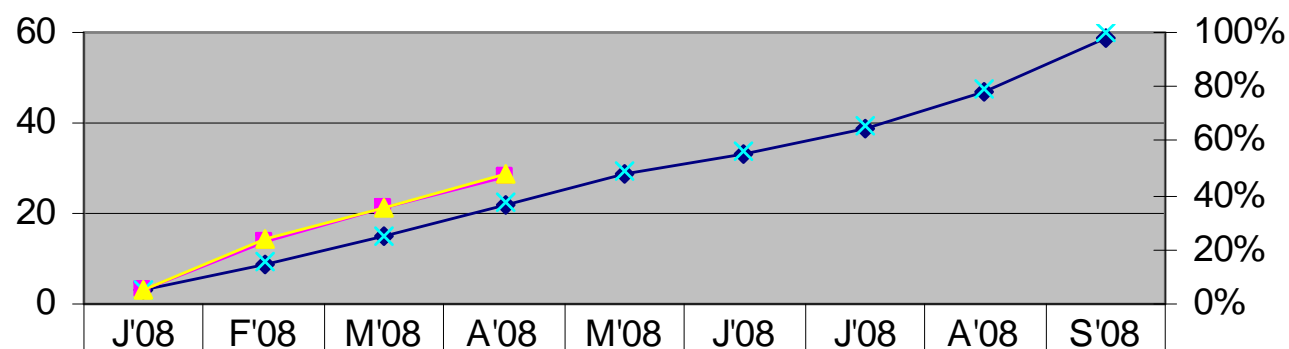
Task Name	Planned End date	Status	Hours Planned	Hours Worked	Task % Completed	Project % Completed	Last Reporting Date	Forecast End Date
Identify requirements	01/25/08	Completed	64	59	100	10	01/25/08	
Identify data	02/14/08		112	54	35	6	02/04/08	02/21/08
Identify processes	02/15/08	Waiting on Someone Else	120	6	3	1	01/25/08	02/28/08
Identify interfaces	03/05/08		104	0	0	0		
Identify server-side requirements	03/13/08		144	0	0	0		
Complete SRR	03/28/08		88	0	0	0		



# Cumulative Task Completion Chart

**ISP Module 2**  
**Status as of 04/30/08**

Cumulative Tasks



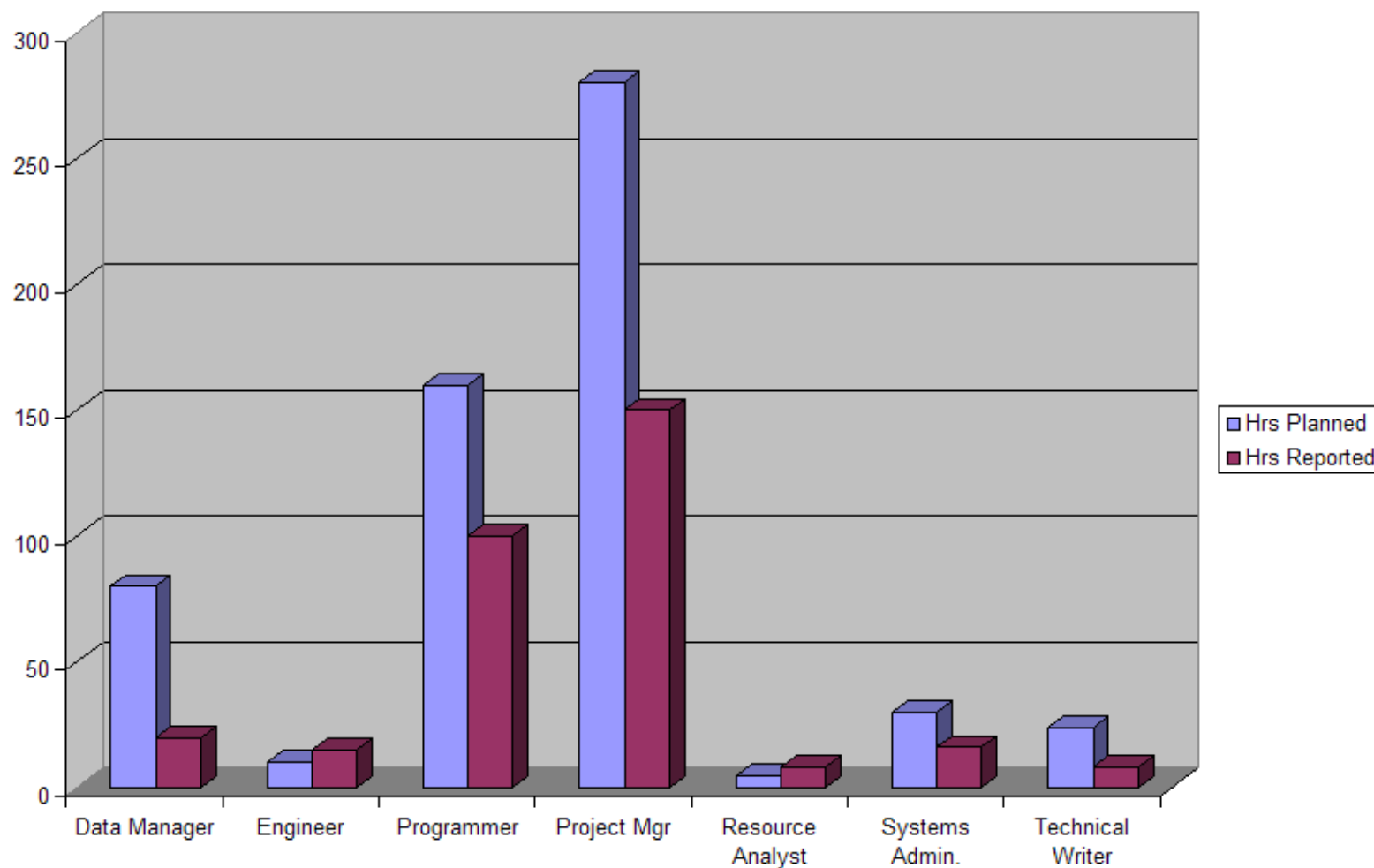
◆ Baseline	3	9	15	22	29	33	39	47	59
■ Actual	3	14	21	28					
× Cum % Baseline	5%	15%	25%	37%	49%	56%	66%	80%	100%
▲ Cum % Actual	5%	24%	36%	47%					



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# Labor Utilization Chart

Labor Utilization as of 01/15/09







# Stakeholder Analysis Matrix

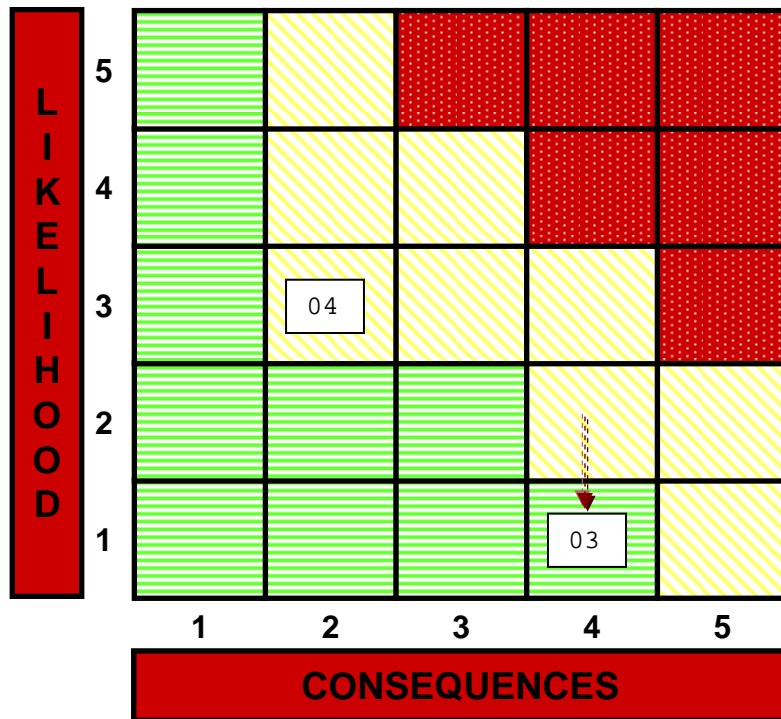
StakeHolder Analysis Report as of 01/12/09  
 LXT Project  
 Project Manager = Mary Bents  
 Deputy Project Manager = Susan Semancik  
 (22 stakeholders)

StakeHolder (Audience)	Type	Description	Level of Impact	Degree of Influence	Willingness to Change	Key Members	Issues	Action Plan
Agency X.500 Application Owner						• Ing, Sharon		
Agency X.500 System Admin						• Russell, Gene		
Application Developers	Core User	Maintains the application and responsible for the technical changes to the application.	High	High	Follower	• TBD		
Application Owners	Core User	Responsible for the application and who has access to the application.	High	High	Follower	• TBD		
Center IAM Implementation Mgr/ Program Mgr	Executive	High-level manager for all the projects that fall under HSPD-12/High-level program manager for the HSPD-12 integration projects.	High	High	Enthusiast	• McCloud, Dennis		
Center Information Technology Managers	Core User	Ensures that the IT security processes and procedures are met by the application owner. Each directorate has an IT Manager that will be matrixed into Code 700.	High	High	Follower	• TBD	IT Managers will be changing as a result of ITCD reorg	Communicate through mailing list (it-fed@listserv.gsfc.nasa.gov)
Center Information Technology Security Manager	Core User	Ensures that the IT security processes and procedures are met.	Medium	Medium	Follower	• TBD		
Center Management	Executive	Formerly The Program Management	Low	High	Follower	• TBD		

# Information Security Portal Project Risk Focus Matrix



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LxC Trend	Rank	Risk ID	Approach	Risk Title
↓	1	03	C	PII Data
New	2	04	W	HTTPS

Criticality	L x C Trend	Approach
High	↓ Decreasing (Improving)	M - Mitigate
Med	↑ Increasing (Worsening)	W - Watch
Low	→ Unchanged	A - Accept
New	New Since Last Period	R - Research
		C - Close

# Information Security Project

## Risk Focus



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Rank	Risk ID	Risk Statement	Approach & Plan	Status
<b>1</b> <b>PII Data</b>  Category: Technical <b>Closed</b> 	03	<b>If:</b> personally identifiable information (PII) is entered into ISP and safeguards are not put into place to protect the data,  <b>Then:</b> the ISP system will be in violation of NASA policy and any loss or compromise of the PII data must be reported to OMB.	<b>Approach (M)</b> <ul style="list-style-type: none"> <li>Implement these safeguards:               <ul style="list-style-type: none"> <li>a) two- factor authentication for access to the ISP server</li> <li>b) HTTPS access to ISP server</li> <li>c) role-restricted access to the create/edit screens for PII data</li> <li>d) role-restricted viewing of displayed PII data</li> <li>e) an alert banner on reports and dashboards displaying PII data to role-approved viewer s</li> <li>f) removal of PII data from print options on reports and dashboards displayed to role-approved viewers</li> </ul> </li> </ul>	<b>Open</b> <ul style="list-style-type: none"> <li>The initial review by Steve Naus indicates no privacy data issues exist with ISP pending further PII definition from HQ.</li> </ul> <b>Closed for Module 2</b>
<b>2</b> <b>HTTPS</b> <b>New</b> Category: Schedule Expected Closure: <u>June 2008</u> 	04	<b>If:</b> our request for a Multiple Client Access SSL certificate for each server is denied,  <b>Then:</b> the schedule will be impacted while a server/failover configuration compatible with multiple SSL certificates per server is developed and tested.	<b>Approach (W)</b> <ul style="list-style-type: none"> <li>Wait to see which type of certificates can be issued for HTTPS access to each ISP server</li> </ul>	<b>Open</b> <ul style="list-style-type: none"> <li>Requested Multiple Client Access SSL certificates for each server.</li> </ul>



# Summary

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- **Enhancements**
  - Copy one project's task structure to a new project
  - Copy block of subtasks that repeat from one task to another
  - Add additional inter-dependencies between tasks
  
- **Cautions**
  - Only as good as the data provided
  - Only as good as the frequency of inputs
  - Future changes to program not necessarily high priority nor necessarily funded



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## Conclusion

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**Questions or Comments?**

**Contact Information:**

**[Susan.K.Semancik@nasa.gov](mailto:Susan.K.Semancik@nasa.gov)**

**(757) 824-1655**